AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) An active implantable medical device, in particular a cardiac pacemaker, defibrillator, cardiovertor and/or multisite device, having at least one electrode terminal placed in each of at least two distinct respective sites including at least one ventricular site and one atrial site, comprising:

means for measuring an intracardiac impedance signal correlated to ~~the~~ an instantaneous blood flow, said means comprising a pulse generator providing a current injection and circuit for collecting a differential potential across said respective electrode terminals in response to said current injection; and

means for determining periodically, in response to said measured impedance signal, an average hemodynamic index evaluated over a number of successive cardiac cycles satisfying a plurality of preset ~~of~~ measurement conditions, said means including:

control means for checking a state of the patient and criteria corresponding to a set of predetermined measurement conditions and for inhibiting the determination of said average hemodynamic index if said criteria set are not satisfied;

measuring means for determining a plurality of the measured impedance signal samples over a first duration corresponding to a systole of one cardiac cycle, further comprising means for determining a beginning of a systole by detection of a predetermined ventricular cardiac event, and determining an end of said same systole in response to said impedance signal reaching a maximum during said same cardiac cycle;

integrating means for determining, in response to said determined samples, a value representative of ~~the~~ a blood volume ejected throughout said systole; ~~and~~

calculating means for establishing said average hemodynamic index in response to a plurality of said values successively determined by the integrating means over a plurality of cardiac cycles.

2. (Canceled)

3. (Currently Amended) The device of claim ~~2~~ 1, wherein the integrating means further comprises means for determining said value representative of the ejected blood volume in response to an evaluation of an increase in an area of the measured impedance signal between said determined beginning and end of the systole.

4. (Original) The device of claim 1, wherein the calculating means further comprises means for weighting each determined value as a function of the duration over which said value was determined, and said plurality of weighted representative values over said plurality of successively determined values.

5. (Original) The device of claim 1, wherein the means for measuring the intracardiac impedance signal further comprises means for delivering a transvalvular impedance signal, said electrode terminals and said pulse generator being configured to inject said injection current between an atrial site and a ventricular site located on the same side of the heart, and said collecting circuit being configured to collect a differential potential between an atrial site and a ventricular site also located on said same side of the heart.

6. (Original) The device of the claim 1, wherein one of said predetermined measurement conditions further comprises a current hour being located inside a predetermined

temporal window.

7. (Original) The device of claim 1, wherein one of the predetermined measurement conditions further comprises a detected ventricular event and a detected atrial event being associated with a current cardiac cycle and forming a pair of predetermined events.

8. (Original) The device of the claim 1, wherein one of the predetermined measurement conditions further comprises a detected heart rate associated with the current cycle being between a minimum predetermined limit and a maximum predetermined limit.

9. (Original) The device of the claim 1, wherein the control means further comprises a sensor having an output indicative of a patient state, the state checking means further comprising means for checking whether said activity sensor output corresponds to said predetermined state of the patient.

10. (Original) The device of claim 1, wherein one of the predetermined measurement conditions further comprises a predetermined number of consecutive preceding cardiac cycles during which the state of the patient and of the device have satisfied said criteria.